APPENDIX H

DELINEATION OF WATERS OF THE UNITED STATES

DELINEATION OF WATERS OF THE UNITED STATES

DAIRYLAND GREYHOUND PARK PROPERTY KENOSHA, WISCONSIN

JULY 2004

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TABLE OF CONTENTS

LIST OF FIGURES

APPENDICES

DELINEATION OF WATERS OF THE U.S., 223± ACRE DAIRYLAND GREYHOUND PARK PROPERTY, KENOSHA COUNTY, WISCONSIN

JUNE 2004

(REVISED FEBRUARY 2005)

1.0 INTRODUCTION

Analytical Environmental Services (AES) has conducted a formal delineation of "waters of the U.S." occurring within the 223± acre Dairyland Greyhound Park property. Dairyland Greyhound Park is a greyhound dog racetrack facility located in the southeastern quadrant of Section 31, T. 2 N., R. 22. E, in the City of Kenosha, Kenosha County, Wisconsin.

The project site is located approximately six miles west of downtown Kenosha (**Figure 1**) and 6.3 miles north of the Illinois State line. The project site is bordered by 52nd Street (State Highway 158) to the north; private businesses, agricultural lands, and 120th Avenue to the west; 60nd Street, agricultural lands, and private residences to the south; and 104th Avenue to the east. State Highway 158 (52nd Street) is a four-lane highway from I-94 to 104th Avenue and becomes a 2-lane highway east of 104th Avenue. **Figure 2** shows the vicinity of the project site. The project area is shown on an aerial photograph in **Figure 3**.

2.0 ENVIRONMENTAL SETTING

The 223± acre study area is located on the western edge of Lake Michigan within an area of rolling to flat topography once shaped by Pleistocene ice sheets and glaciers known as the Southern Lake Michigan Coastal Ecological Landscape. Landforms of this region are characteristic of glacial lake influence, with ridge and swale topography, clay bluffs, and lake plain along Lake Michigan. The historic vegetation of this region was dominated by sugar maple-basswood-beech forests, oak forest, oak savanna and prairies. Today, most of the region is agricultural or developed. As a consequence of urban, suburban, and agricultural development, the region is dominated by weedy vegetation, and forests are reduced to scattered woodlots or strips lining rivers and streams of the area.

The site is dominated by several man-made ponds, the paved and developed portions of the property, and old, reclaimed landfill, and the floodplain forest of Kilbourn Creek.

2.1 EXISTING FIELD CONDITIONS

The creek and associated floodplain forest, excavated ponds, wetlands of the site were delineated in early April 2004 at the onset of the growing season when early spring conditions were in force. Above normal rainfall conditions were seen in the area at that time. A beaver colony had blocked the outlet to the large pond, which caused localized flooding of the wetlands fringing the pond. Most of the trees were in bud and herbaceous vegetation had not yet grown. The ground was not frozen.

2.2 INTERSTATE COMMERCE CONNECTION

There are no known industries at the site that operate in interstate or foreign commerce. The site has been used in the past for dog racing.

3.0 METHODOLOGY

The delineation of Waters of the U. S. was conducted in accordance with the 1987 "Corps of Engineers Wetlands Delineation Manual." Minimum standards for acceptance of preliminary wetlands delineations have been set by the St. Paul District of the Corps (USACE), and the minimum requirements were used to develop the study and report.

Prior to conducting the field delineation the following information sources were reviewed:

- USGS "Pleasant Prairie, Wisconsin" 7.5 minute topographic quadrangle;
- Black and white aerial photography of the study area and vicinity;
- Natural Resources Conservation Service soil survey maps and unit descriptions;
- The Wisconsin Wetland Inventory;
- Hydric soil information obtained from the Natural Resources Conservation Service.

The field delineation was conducted by AES biologists Tim Armstrong and John Miller on April 19, 20, and 21, 2004. The *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) was used as the standard for determining if specific areas qualify as wetlands subject to the provisions of the Clean Water Act. U.S. Army Corps of Engineers' regulations (33 CFR 328) were used to determine the presence of jurisdictional "waters of the U.S." other than wetlands. Additional guidance was obtained from *Guidelines for Submitting Wetland Delineations in Wisconsin to the St. Paul District Corps of Engineers* (USACE, 1996).

The entire 223± acre study area was assessed in such a manner as to view all areas to the degree necessary to determine the presence or absence of jurisdictional features. Data collection points were chosen at representative locations and detailed information on vegetation, soils, and hydrology

characteristics were taken for each data point. A series of short transects were established at representative points along the edges of ponds and suspect wetland features. Since site topography was well known at a scale suitable for detailed mapping, the spacing of transects was greater than the suggested 200-foot interval stated in the *Guidelines for Submitting Wetland Delineations in Wisconsin to the St. Paul District Corps of Engineers* (USACE, 1996).

Plant nomenclature followed *Wetland Plants and Plant Communities of Minnesota & Wisconsin* (Eggers & Reed, 1997), the *Illustrated Companion to Gleason and Cronquist's Manual*, Holmgren 1998; the 1988 *National List of Vascular Plant Species that Occur in Wetlands, North Central Region, Region 3* (Reed 1988), was used to determine the status of observed plants as wetland indicator species. A standard Munsell® soil color chart was used to determine soil matrix and mottle colors.

Global Positioning System (GPS) technology was used to locate and map the preliminary boundaries of the Waters of the U. S. of the site during the April 2004 site work. A Trimble Geo XT receiver was used during the field visit to locate polygon edges and soil pit sampling points. Soil pits were excavated to the required depth of 18-inches. The geographic coordinate system used to reference the data was Universal Transverse Mercator (UTM–Zone); North American Datum (NAD83); and Environmental Systems Research Institute (ESRI) shape-files were generated. At least one set of paired data points was documented for each feature or complex studied. Wetland boundaries were marked with flags and stakes. Flags and stakes were numbered and located by GPS, at a level of accuracy of less than 1-meter. Global Positioning System data are provided in **Appendix B**.

3.1 JUSTIFICATION FOR THE WETLANDS BOUNDARIES

Together with a synthesis of data on hydrology, soils, and hydrophytic vegetation, wetland boundaries were drawn with the aid of a detailed site topographic map. Hydrology of the ponds and fringing wetlands of the site was controlled by the levels of water in the lowermost water retention basin on the property, where all the water was piped before being discharged offsite in an agricultural field. There was no apparent connection between the ponds of the site and Kilbourn Creek. The boundaries of Kilbourn Creek and its fringing wetland floodplain forest were drawn on the basis of detailed topography and the mapped extent of hydric soil on the floor of the floodplain bordering the creek.

Data sheets which document the basis for determining if suspect features qualify as jurisdictional "waters of the U.S." were completed for representative locations and are included in **Appendix A** of this report. The boundaries of "waters of the U.S." located in the study area were measured in the field by GPS, mapped as an ESRI shape-file, and recorded on a 1" = 240' aerial photograph with a

topographic base. These ESRI data and Geographical Information System (GIS) software were used to calculate the acreage of each polygon.

4.0 RESULTS

4.1 UPLAND HABITATS

Upland habitat within the study area consists primarily of ruderal species including bentgrass (*Agrostis perennans*), scarlet pimpernel (*Anagallis arvensis*), spotted centaurea (*Centaurea maculosa*), field thistle (*Cirsium discolor*), bull thistle (*Cirsium vulgare*) Queen Anne's lace (*Daucus carota*), common teasel (*Dipsacus sylvestris*), cranesbill (*Geranium dissectum*), Canada hawkweed (*Hieracium canadense*), peppergrass (*Lepidium densiflorum*), white clover (*Melilotus alba),* common red reed (*Phragmites australis*), English plantain (*Plantago major*), Kentucky bluegrass (*Poa pratensis*), self heal (*Prunella vulgaris*), tumble mustard (*Sisymbrium altissimum*), common dandelion (*Taraxacum officinale*), and blue vervain (*Verbena hastata*).

4.2 SOIL TYPES

Soil survey information obtained from the NRCS Union Grove, Wisconsin Soil Survey Office and NRCS "Soils Mart" Web Page identifies several mapped soil units within the 223± acre study area including the Ashkum, Beecher, Elliott, Hebron, Houghton, Markham, Morley, and Varna series soils. Wet alluvial land is also mapped on the site. Much of the site has been altered through excavation, dumping, and development. A soils map of the study area is presented as **Figure 4.**

4.3 HYDROLOGY

The 223± acre study area is relatively level to rolling in topography and is located at an elevation between approximately 660 and 740 feet above mean sea level. Except for the surface water of Kilbourn Creek, the remainder of the site drains into one of several excavated ponds. These ponds, connected by subterranean drains discharge into a retention basin at the south end of the property. When the retention basin reaches capacity, water flows through a pipe under the avenue to the south and thence to a field.

Kilbourn Creek, on the other hand, is a tributary of the Des Plaines River. The Des Plaines River begins in Kenosha County, Wisconsin, and flows south into Illinois as a small, shallow prairie stream. It runs approximately 95 miles through four counties in Illinois to its confluence with the Kankakee River at Channahon where the two form the Illinois River. The Illinois River is a tributary of the Mississippi River.

4.4 WATERS OF THE U.S. AND/OR STATE OF WISCONSIN

Kilbourn Creek and its fringing wetland floodplain forest, a wetland, and four constructed ponds occur within the study area. These features occupy a total of 36.03 acres. The wetland and excavated ponds are isolated from Kilbourn Creek. However, Kilbourn Creek is a tributary to the Des Plaines River, a tributary of the Mississippi River. **Table 1** below provides a listing of the features found. The State of Wisconsin includes several of these in their wetland inventory of the region (**Figure 5**). The "Waters of the U.S." delineation map is presented as **Figure 6**.

TABLE 1
"WATERS OF THE UNITED STATES", 233± ACRE DAIRYLAND GREYHOUND PARK PROPERTY

Callout on Map	Type of Wetland	Acres
A	Wetland A	3.65
B	Pond B (Excavated)	5.28
C	Pond C (Excavated)	0.85
D	Pond (Excavated in Former Wetland)	20.02
E	Retention Pond (Excavated)	2.10
F	Kilbourn Creek and Floodplain Forest	4.13
TOTAL		**36.03**

Examples of the water features seen at the site appear in **Figure 7**.

5.0 SUMMARY

Analytical Environmental Services has conducted a delineation of "waters of the U.S." occurring within the 233± acre Dairyland Greyhound Park property. The field delineation was conducted by AES biologists Tim Armstrong and John Miller on April 19, 20, and 21, 2004. All areas were viewed to the degree necessary to determine the presence or absence of jurisdictional "waters of the U.S." Kilbourn Creek and its fringing wetland floodplain forest, a wetland, and four constructed ponds occur within the study area. These jurisdictional waters occupy a total of 36.03 acres. The wetland and excavated ponds are isolated from Kilbourn Creek. However, Kilbourn Creek and its fringing floodplain forest have a direct connection to the Des Plaines River thence Kankakee River thence Illinois River thence Mississippi River, which is a navigable waterway.

6.0 REFERENCES

Analytical Environmental Services (AES). 2004b. Biological Resources Assessment of the Kenosha Casino Fee-to-Trust Acquisition, Kenosha County, Wisconsin. Unpublished technical report.

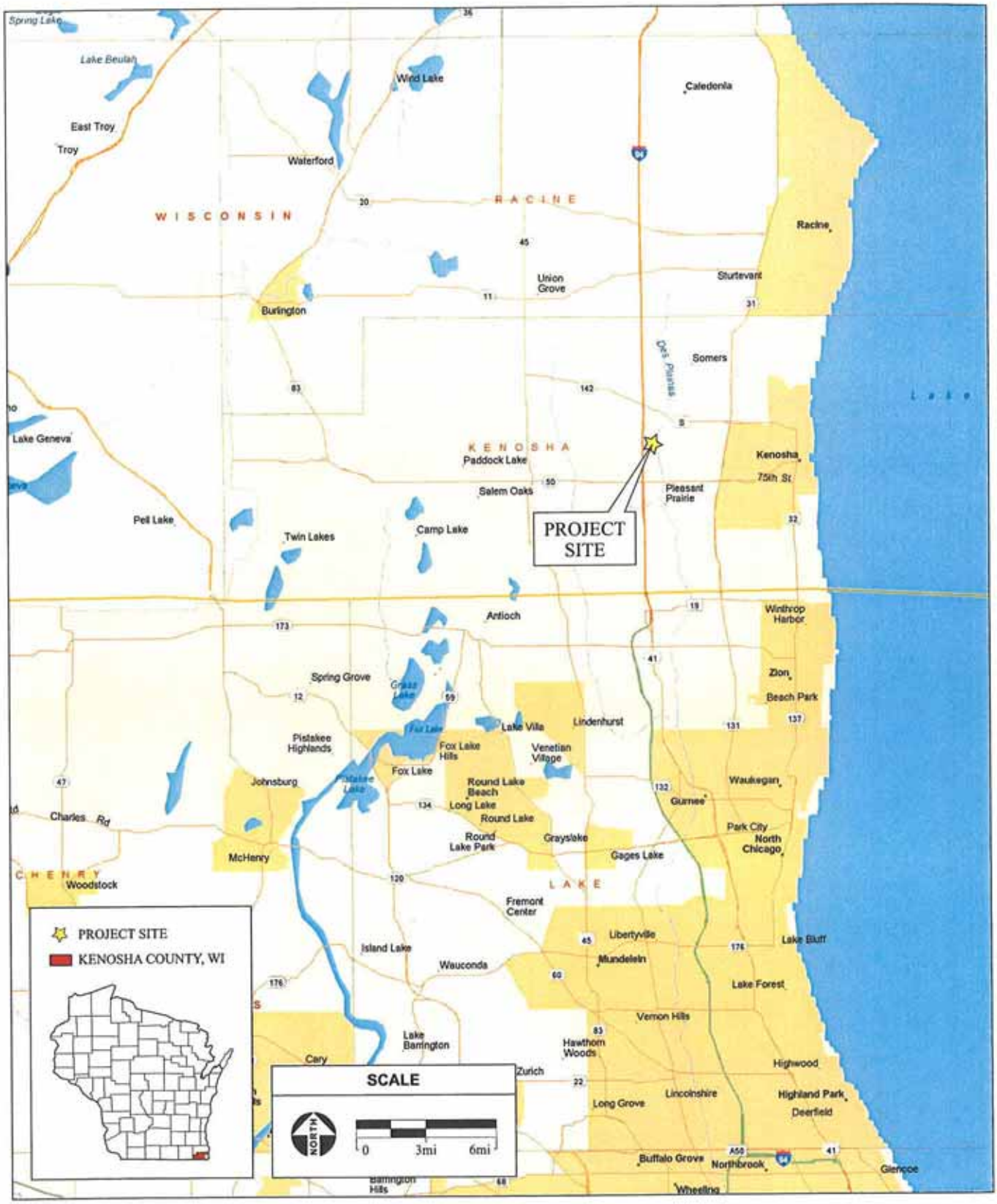
Eggers, S. D. and D. M. Reed. 1997. Wetland Plants and Plant Communities of Minnesota and Wisconsin. U. S. Army Corps of Engineers, St. Paul District.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual.* Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.

Holmgren, N. H. 1998. Illustrated Companion to Gleason and Cronquist's Manual Illustrations of the Vascular Plants of Northeastern United States and Adjacent Canada. New York: NYBG Press.

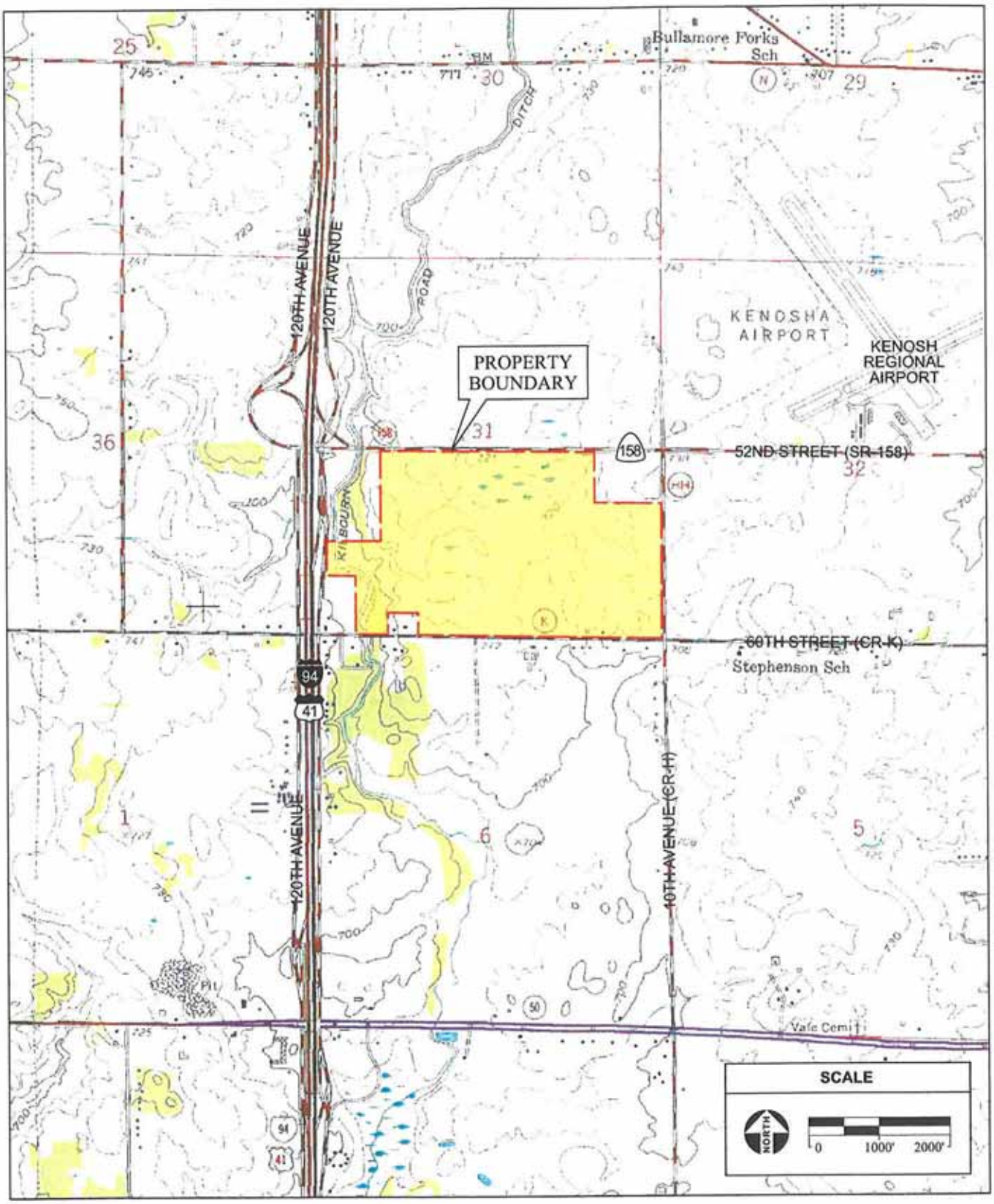
Reed, P.B., Jr. 1988. *National List of Plant Species That Occur in Wetlands: North Central Region (Region 3).* Biological Report 88 (26.10). National Ecology Research Center, National Wetlands Inventory, U.S. Fish and Wildlife Service, St. Petersburg, Florida.

USACE. 1996. *Guidelines for Submitting Wetland Delineations in Wisconsin to the St. Paul District Corps of Engineers.* U. S. Army Corps of Engineers, St. Paul District Public Notice 96-01078-SDE issued 22 May 1996.



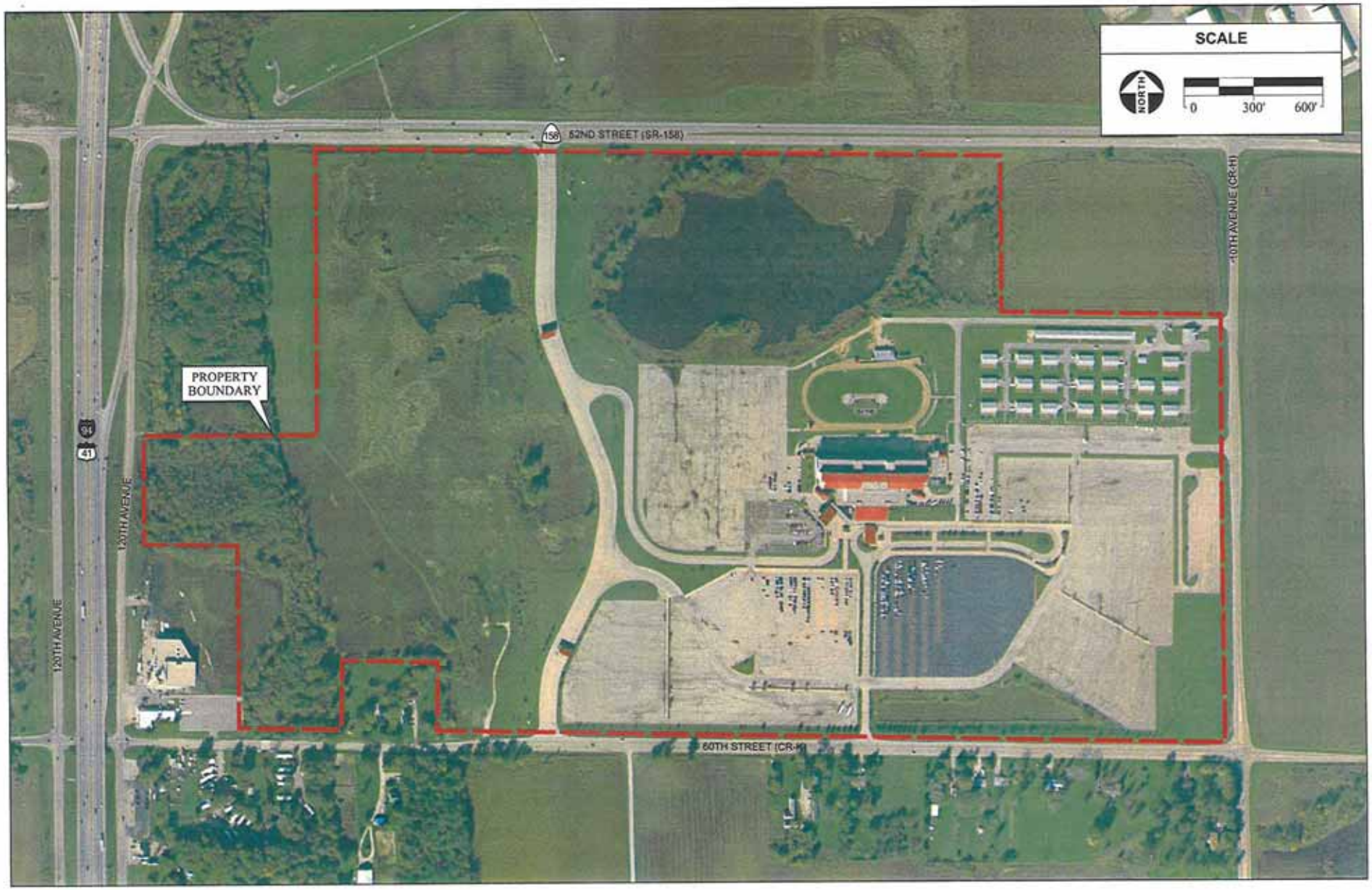
SOURCE: MicroSoft Streets & Trips, 2004 ; AES, 2004

Figure 1
Regional Location



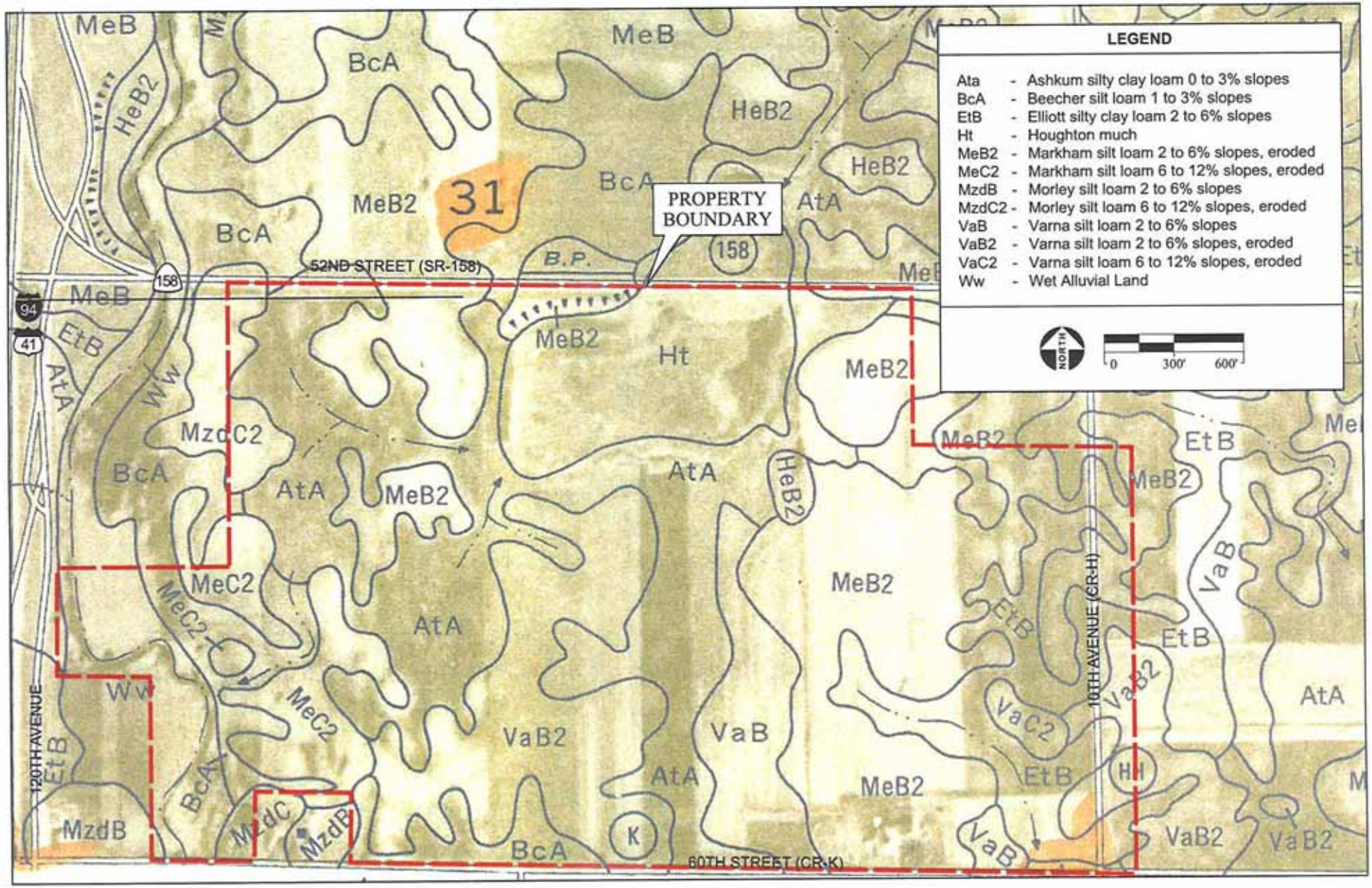
SOURCE: "Pleasant Prairie, MI" USGS 7.5 Minute Topographic Quadrangle, Section 31, T2N, R22E, 4th Principal Meridian & Baseline of Extended 4th P.M.; AES, 2004

Figure 2
Site and Vicinity



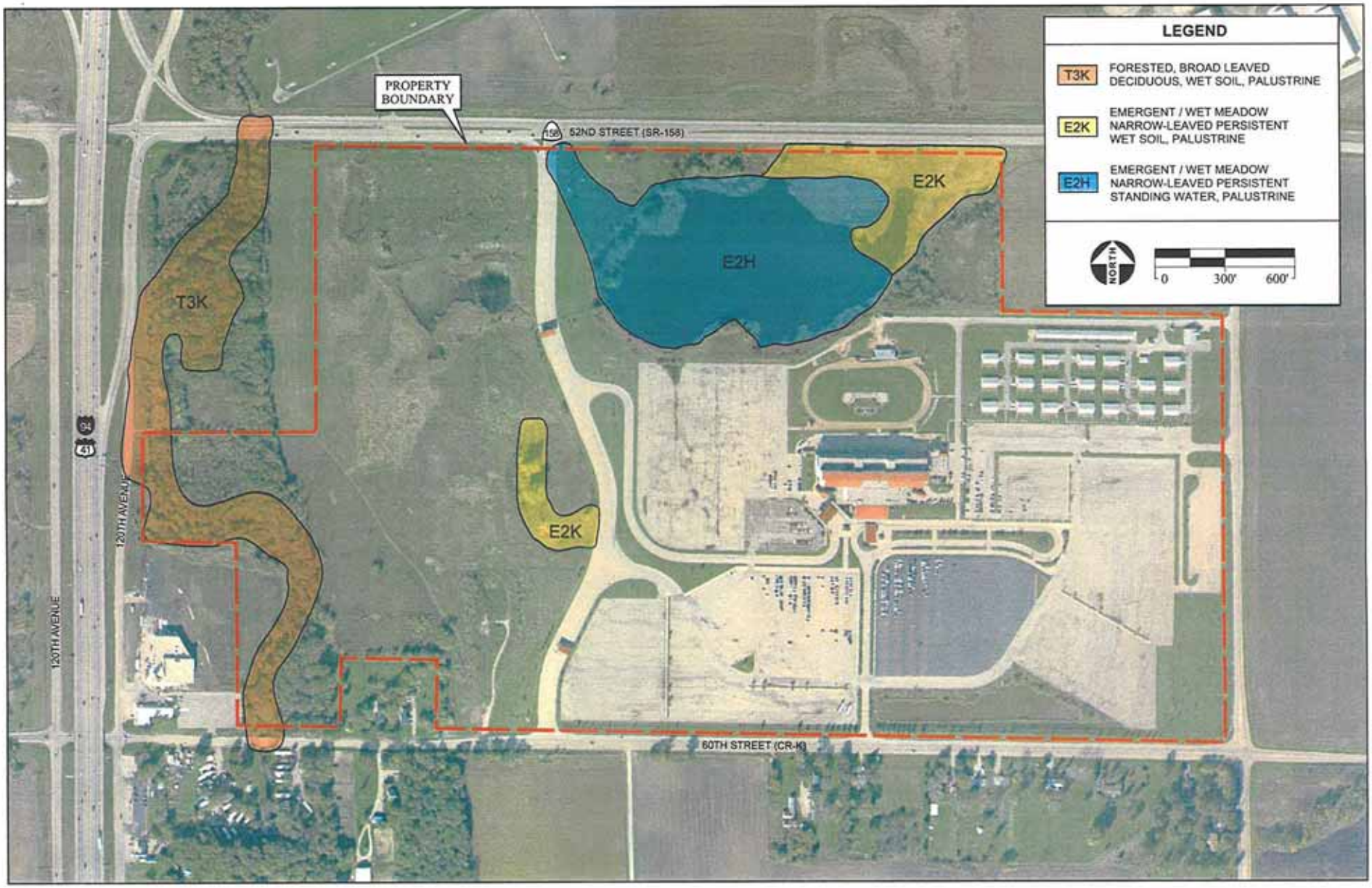
SOURCE: AirPhoto USA, 11/1/2002 ; AES, 2004

Figure 3
Aerial Photograph



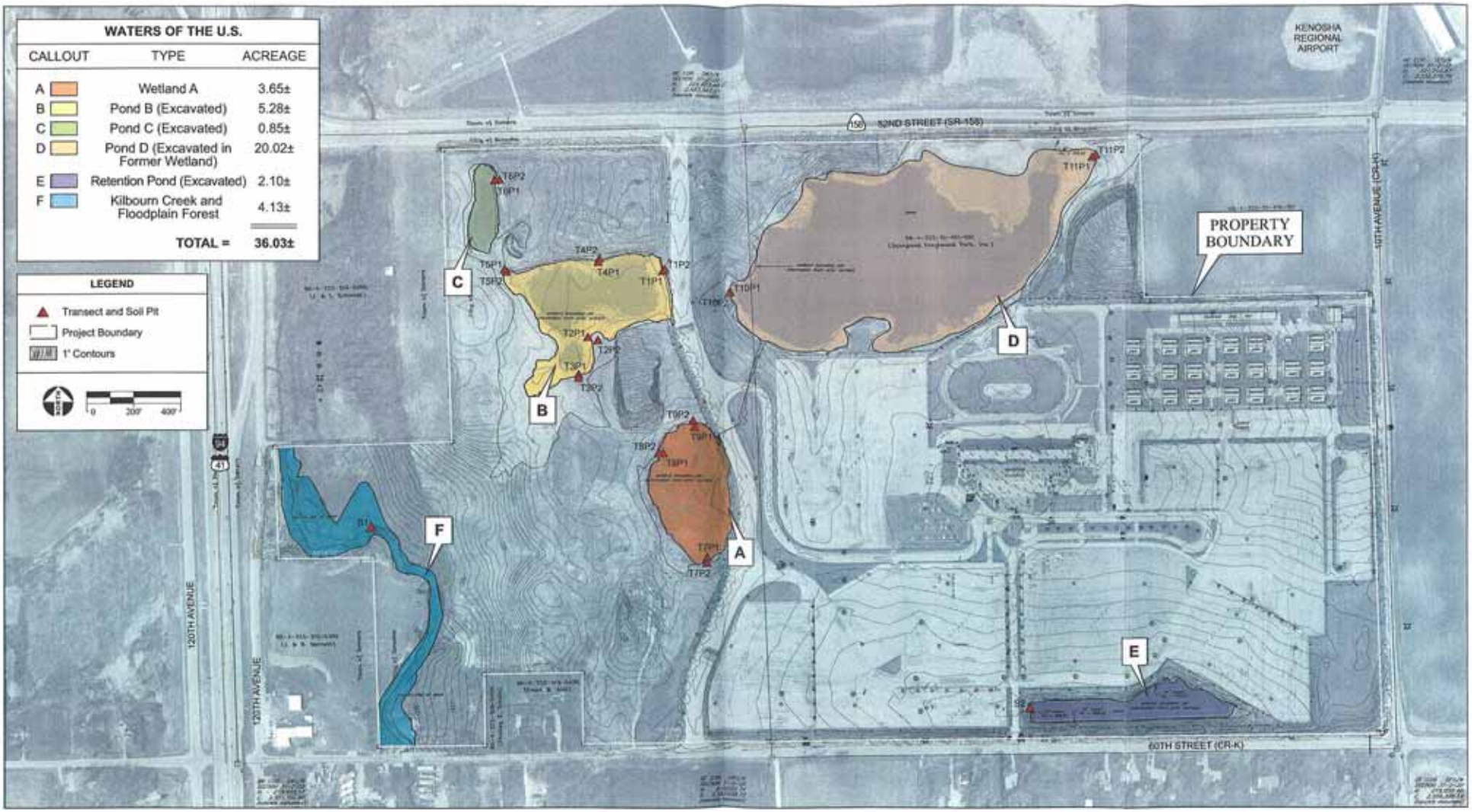
SOURCE: NRCS ; AES, 2004

Figure 4
Soil Types



SOURCE: Wisconsin Department of Natural Resources Bureau of Planning, 6/25/1979 ; AirPhoto USA, 11/1/2002 ; AES, 2004

Figure 5
Wisconsin Wetland Inventory



SOURCE: SEWRPC Aerial Photograph, 2000 ; AES, 2004

Figure 6
Delineation of "Waters of the United States"

APPENDIX A

DELINEATION DATA SHEETS

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: S
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: 1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Acer negundo*	**Tree**	**FACW-**	1		
2 *Quercus alba*	**Tree**	**FACU-**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 1/2 = 50%

Remarks:

Criteria for this classification are not met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	none (in)
Depth of Saturated Soil	none (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

No pit was excavated, this point was established along Kilbourn Creek.

Plot ID:S1

SOILS

Map Unit Name (Series and Phase): (Ww) Wet Alluvial Land	Drainage Class: Poor
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

No pit was excavated, this point was established along Kilbourn Creek.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	☐ YES	■ NO	Is this Sampling Point Within a Wetland? ■ YES ☐ NO
Wetland Hydrology Present	☐ YES	☐ NO	
Hydric Soils Present	■ YES	☐ NO	

Remarks:

This point is on the alluvium of Kilbourn Creek. The creek had a flow rate of approximately 1 cfs, width was approximately 20', and the banks were cut approximately 3' high.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T1
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Typha angustifolia*	**Herb**	**OBL**	1		
2 *Phalaris arundinacea*	**Herb**	**FACW+**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2/2 = 100%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	0 (in)
Depth of Free Water in Pit	2 (in)
Depth of Saturated Soil	0 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ■ Inundated
- ■ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

Plot ID:T1P1

SOILS

Map Unit Name (Series and Phase): (Ht) Houghton muck	Drainage Class: Very poor
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-13"	A	10YR 4/1			Clay loam
13-14"	B	2.5Y			N/O
14-18"	B	10YR 5/2			Clay loam

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ■ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	■ YES ☐ NO	Is this Sampling Point Within a Wetland? ■ YES ☐ NO
Wetland Hydrology Present	■ YES ☐ NO	
Hydric Soils Present	■ YES ☐ NO	

Remarks:

This point meets all of the criteria for a wetland point.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park			Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe			County: Kenosha
Investigators John Miller and Tim Armstrong			State: Wisconsin
Do Normal Conditions exist on the site?	■ YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐ YES	■ NO	Transect ID: T1
Is the area a potential Problem Area? (If needed, explain on reverse)	☐ YES	■ NO	Plot ID: P2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Phalaris arundinacea*	**Herb**	**FACW+**	1		
2 *Agrostis perennans*	**Herb**	**FAC-**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 1/2 = 50%

Remarks:

Criteria for this classification are not met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	none (in)
Depth of Saturated Soil	none (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are not met.

Plot ID:T1P2

SOILS

Map Unit Name (Series and Phase): (Ht) Houghton muck	Drainage Class: Very poor
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-12"	A	10YR 3/2			Clay loam
12-18"	B	10YR 5/3			Clay loam

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	☐ YES	■ NO	Is this Sampling Point Within a Wetland? ☐ YES ■ NO
Wetland Hydrology Present	☐ YES	■ NO	
Hydric Soils Present	■ YES	☐ NO	

Remarks:

This point does not meet the criteria for a wetland..

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park			Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe			County: Kenosha
Investigators John Miller and Tim Armstrong			State: Wisconsin
Do Normal Conditions exist on the site?	■ YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐ YES	■ NO	Transect ID: T2
Is the area a potential Problem Area? (If needed, explain on reverse)	☐ YES	■ NO	Plot ID: P1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Phalaris arundinacea*	**Herb**	**FACW+**	1		
2 *Typha angustifolia*	**Herb**	**OBL**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2/2 = 100%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	4 (in)
Depth of Saturated Soil	2 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ■ Inundated
- Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

Plot ID:T2P1

SOILS

Map Unit Name (Series and Phase): (MeB2)
Markham silt loam, 2 to 6 percent slopes, eroded

Drainage Class:
Moderately well drained

Taxonomy (Subgroup):

Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-9"	A	10YR 3/2			Clay loam
9-12"	B	10YR 3/1			Clay loam
12-18"	B	10YR 5/4			Clay loam

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ■ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	■ YES ☐ NO	Is this Sampling Point Within a Wetland? ■ YES ☐ NO
Wetland Hydrology Present	■ YES ☐ NO	
Hydric Soils Present	■ YES ☐ NO	

Remarks:

This point meets all of the criteria for a wetland point.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■ YES	☐ NO		Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐ YES	■ NO		Transect ID: T2
Is the area a potential Problem Area? (If needed, explain on reverse)	☐ YES	■ NO		Plot ID: P2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Agrostis perennans*	**Herb**	**FAC-**	1		
2 *Aster firmus*	**Herb**	**FACW+**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 1/2 = 50%

Remarks:

Criteria for this classification are not met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	none (in)
Depth of Saturated Soil	none (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are not met.

Plot ID:T2P2

SOILS

Map Unit Name (Series and Phase): (MeB2)
Markham silt loam, 2 to 6 percent slopes, eroded

Drainage Class:
Moderately well drained

Taxonomy (Subgroup):

Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-3"	A	2.5Y 3/2			Clay
3-5"	A	2.5Y 4/1 2.5Y 5/6			Variegated clay
5-13"	B	10YR 2/1			Clay loam
13-18"	B	10YR 4/3			

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are not met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	☐ YES	■ NO
Wetland Hydrology Present	☐ YES	■ NO
Hydric Soils Present	☐ YES	■ NO

Is this Sampling Point Within a Wetland?
☐ YES ■ NO

Remarks:

This point does not meet the criteria for a wetland.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T3
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Salix humilis*	**Shrub**	**FACU**	1		
2 *Typha angustifolia*	**Herb**	**OBL**	2		
3 *Phalaris arundinacea*	**Herb**	**FACW+**	3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2/3 = 67%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	6 (in)
Depth of Saturated Soil	2 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ■ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

Plot ID:T3P1

SOILS

Map Unit Name (Series and Phase): (MeB2)
Markham silt loam, 2 to 6 percent slopes, eroded

Drainage Class:
Moderately well drained

Taxonomy (Subgroup):

Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-12"	A	10YR 3/1			Clay loam
12-18"	A	5Y 5/1	5Y 5/4	40%	Clay loam

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ■ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	■ YES ☐ NO	Is this Sampling Point Within a Wetland? ■ YES ☐ NO
Wetland Hydrology Present	■ YES ☐ NO	
Hydric Soils Present	■ YES ☐ NO	

Remarks:

This point meets all of the criteria for a wetland point.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park			Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe			County: Kenosha
Investigators John Miller and Tim Armstrong			State: Wisconsin
Do Normal Conditions exist on the site?	■ YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐ YES	■ NO	Transect ID: T3
Is the area a potential Problem Area? (If needed, explain on reverse)	☐ YES	■ NO	Plot ID: P2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Aster firmus*	**Herb**	**FACW+**	1		
2			2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 1/1 = 100%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	none (in)
Depth of Saturated Soil	none (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are not met.

Plot ID:T3P2

SOILS

Map Unit Name (Series and Phase): (MeB2) Markham silt loam, 2 to 6 percent slopes, eroded	Drainage Class: Moderately well drained
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-11"	A	5Y 5/3			Variegated clay loam
11-18"	B	5Y 3/1			Clay loam

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are not met.

WETLAND DETERMINATION

			Is this Sampling Point Within a Wetland? ☐ YES ■ NO
Hydrophytic Vegetation Present	■ YES	☐ NO	
Wetland Hydrology Present	☐ YES	■ NO	
Hydric Soils Present	☐ YES	■ NO	

Remarks:

This point does not meet the criteria for a wetland.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■ YES	☐ NO		Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐ YES	■ NO		Transect ID: T4
Is the area a potential Problem Area? (If needed, explain on reverse)	☐ YES	■ NO		Plot ID: P1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Typha angustifolia*	**Herb**	**OBL**	1		
2 *Phalaris arundinacea*	**Herb**	**FACW+**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2/2 = 100%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	2 (in)
Depth of Saturated Soil	0 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ■ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

Plot ID:T4P1

SOILS

Map Unit Name (Series and Phase): (Ata)
Ashkum silty clay loam, 0 to 3 percent slopes

Drainage Class: Poor

Taxonomy (Subgroup):

Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-9"	A	10 YR 4/2			Clay loam
9-18"	B	10 YR 2/1			slag

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ■ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	■ YES ☐ NO	Is this Sampling Point Within a Wetland? ■ YES ☐ NO
Wetland Hydrology Present	■ YES ☐ NO	
Hydric Soils Present	■ YES ☐ NO	

Remarks:

This point meets all of the criteria for a wetland point.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T4
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Phalaris arundinacea*	**Herb**	**FACW+**	1		
2 *Aster firmus*	**Herb**	**FACW+**	2		
3 *Juncus canadensis*	**Herb**	**OBL**	3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 3/3 = 100%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	none (in)
Depth of Saturated Soil	none (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are not met.

Plot ID:T4P2

SOILS

Map Unit Name (Series and Phase): (Ata) Ashkum silty clay loam, 0 to 3 percent slopes	Drainage Class: Poor
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-8"	A	10 YR 5/2			Clay
8-13"	A	10 YR 5/2 10 YR 2/1			Variegated
13-18"	B	5Y 2.5/1			Clay loam

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	■ YES ☐ NO	Is this Sampling Point Within a Wetland? ☐ YES ■ NO
Wetland Hydrology Present	☐ YES ■ NO	
Hydric Soils Present	■ YES ☐ NO	

Remarks:

This point does not meet the criteria for a wetland.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T5
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Phalaris arundinacea*	**Herb**	**FACW+**	1		
2 *Typha angustifolia*	**Herb**	**OBL**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2/2 = 100%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	8 (in)
Depth of Saturated Soil	4 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ■ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

Plot ID:T5P1

SOILS

Map Unit Name (Series and Phase): (Me B2)
Markham silt loam, 2 to 6 percent slopes, eroded

Drainage Class: Moderately well drained

Taxonomy (Subgroup):

Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-8"	A	10 YR 5/2 10 YR 5/6			Variegated clay
8-18"	A	10 YR 2/1			Clay loam

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	■ YES ☐ NO	Is this Sampling Point Within a Wetland? ■ YES ☐ NO
Wetland Hydrology Present	■ YES ☐ NO	
Hydric Soils Present	■ YES ☐ NO	

Remarks:

This point meets all of the criteria for a wetland point.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T5
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Phalaris arundinacea*	**Herb**	**FACW+**	1		
2 *Agrostis perennans*	**Herb**	**FACU-**	2		
3 *Aster firmus*	**Herb**	**FACW+**	3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2/3 = 67%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	none (in)
Depth of Saturated Soil	none (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are not met.

Plot ID:T5P2

SOILS

Map Unit Name (Series and Phase): (Me B2)
Markham silt loam, 2 to 6 percent slopes, eroded

Drainage Class:
Moderately well drained

Taxonomy (Subgroup):

Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-8"	A	10 YR 4/1 10 YR 5/6			Variegated clay
8-13"	B	5 Y 5/3			Clay loam
13-18"	B	5Y 2.5/1			Clay loam

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	■ YES ☐ NO	Is this Sampling Point Within a Wetland? ☐ YES ■ NO
Wetland Hydrology Present	☐ YES ■ NO	
Hydric Soils Present	■ YES ☐ NO	

Remarks:

This point does not meet the criteria for a wetland.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park			Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe			County: Kenosha
Investigators John Miller and Tim Armstrong			State: Wisconsin
Do Normal Conditions exist on the site?	■ YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐ YES	■ NO	Transect ID: T6
Is the area a potential Problem Area? (If needed, explain on reverse)	☐ YES	■ NO	Plot ID: P1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Salix humilis*	**Shrub**	**FACU**	1		
2 *Typha angustifolia*	**Herb**	**OBL**	2		
3 *Juncus tenuis*	**Herb**	**FAC-**	3		
4 *Equisetum scirpoides*	**Herb**	**FAC+**	4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 3/4 = 75%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	2 (in)
Depth of Saturated Soil	0 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ■ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

Plot ID:T6P1

SOILS

Map Unit Name (Series and Phase): (Ata) Ashkum silty clay loam, 0 to 3 percent slopes	Drainage Class: Poor
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-14"	A	5 Y 5/3	5 Y 5/6	40%	Clay

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ■ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

			Is this Sampling Point Within a Wetland?
Hydrophytic Vegetation Present	■ YES	☐ NO	■ YES ☐ NO
Wetland Hydrology Present	■ YES	☐ NO	
Hydric Soils Present	■ YES	☐ NO	

Remarks:

This point meets all of the criteria for a wetland point.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T6
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Trifolium variegatum*	**Herb**	**NOL**	1		
2 *Agrostis perennans*	**Herb**	**FACU**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 0/2 = 0%

Remarks:

Criteria for this classification are not met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	none (in)
Depth of Saturated Soil	none (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are not met.

Plot ID:T6P2

SOILS

Map Unit Name (Series and Phase): (Ata)
Ashkum silty clay loam, 0 to 3 percent slopes

Drainage Class: Poor

Taxonomy (Subgroup):

Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-18"	A	2.5 Y 5/3 2.5 Y 2.5/1			Variegated

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	☐ YES	■ NO
Wetland Hydrology Present	☐ YES	■ NO
Hydric Soils Present	■ YES	☐ NO

Is this Sampling Point Within a Wetland?
☐ YES ■ NO

Remarks:

This point does not meet the criteria for a wetland.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T7
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Typha angustifolia*	**Herb**	**OBL**	1		
2 *Phalaris arundinacea*	**Herb**	**FACW+**	2		
3 *Scirpus cyperinus*	**Herb**	**OBL**	3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 3/3 = 100%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	4 (in)
Depth of Saturated Soil	0 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ■ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

Plot ID:T7P1

SOILS

Map Unit Name (Series and Phase): (Ata)
Ashkum silty clay loam, 0 to 3 percent slopes

Drainage Class: Poor

Taxonomy (Subgroup):

Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-16"	A	10YR 2/1			Clay loam
16-18"	B	10YR 4/1	10YR 5/4	40%	Clay

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ■ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	■ YES ☐ NO	Is this Sampling Point Within a Wetland? ■ YES ☐ NO
Wetland Hydrology Present	■ YES ☐ NO	
Hydric Soils Present	■ YES ☐ NO	

Remarks:

This point meets all of the criteria for a wetland point.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T7
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Aster firmus*	**Herb**	**FACW+**	1		
2 *Agrostis perennans*	**Herb**	**FAC-**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 1/2 = 50%

Remarks:

Criteria for this classification are not met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	none (in)
Depth of Saturated Soil	none (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are not met.

Plot ID:T7P2

SOILS

Map Unit Name (Series and Phase): (Ata) Ashkum silty clay loam, 0 to 3 percent slopes	Drainage Class: Poor
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-12"	A	10YR 2/1			Clay loam
12-18"	B	10YR 5/2	10YR 5/6	35%	Clay

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	☐ YES	■ NO	Is this Sampling Point Within a Wetland? ☐ YES ■ NO
Wetland Hydrology Present	☐ YES	■ NO	
Hydric Soils Present	■ YES	☐ NO	

Remarks:

This point does not meet the criteria for a wetland.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T8
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Populus deltoides*	**Tree**	**FAC+**	1		
2 *Scirpus cyperinus*	**Herb**	**OBL**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2/2 = 100%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	none (in)
Depth of Saturated Soil	none (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are not met.

Plot ID:T8P1

SOILS

Map Unit Name (Series and Phase): (Ata)
Ashkum silty clay loam, 0 to 3 percent slopes

Drainage Class: Poor

Taxonomy (Subgroup):

Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-20"	A	10YR 2/1			Clay loam

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	■ YES ☐ NO	Is this Sampling Point Within a Wetland? ■ YES ☐ NO
Wetland Hydrology Present	☐ YES ■ NO	
Hydric Soils Present	■ YES ☐ NO	

Remarks:

This point meets all of the criteria for a wetland point.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T8
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Cirsium vulgare*	**Herb**	**FACU**	1		
2 *Sisymbrium altissimum*	**Herb**	**FACU**	2		
3 *Agrostis perennans*	**Herb**	**FAC-**	3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 0/3 = 0%

Remarks:

Criteria for this classification are not met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	none (in)
Depth of Saturated Soil	none (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are not met.

Plot ID:T8P2

SOILS

Map Unit Name (Series and Phase): (Ata) Ashkum silty clay loam, 0 to 3 percent slopes	Drainage Class: Poor
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-16"	A	5Y 2.5/1			Clay loam
16-18"	B	5Y 3/1	5Y 5/3	40%	Clay

HYDRIC SOIL INDICATORS

☐	Histosol	☐	Concretions
☐	Histic Epipedon	☐	High Organic Content in Surface Layer in Sandy Soils
☐	Sulfidic Odor	☐	Organic Streaking in Sandy Soils
☐	Aquic Moisture Regime	■	Listed on Local Hydric Soils List
☐	Reducing Conditions	☐	Listen on National Hydric Soils List
■	Gleyed or Low-Chroma Colors	☐	Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

			Is this Sampling Point Within a Wetland?
Hydrophytic Vegetation Present	☐ YES	■ NO	☐ YES ■ NO
Wetland Hydrology Present	☐ YES	■ NO	
Hydric Soils Present	■ YES	☐ NO	

Remarks:

This point does not meet the criteria for a wetland.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park			Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe			County: Kenosha
Investigators John Miller and Tim Armstrong			State: Wisconsin
Do Normal Conditions exist on the site?	■ YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐ YES	■ NO	Transect ID: T9
Is the area a potential Problem Area? (If needed, explain on reverse)	☐ YES	■ NO	Plot ID: P1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Juncus canadensis*	**Herb**	**OBL**	1		
2 *Carex vulpinoidea*	**Herb**	**OBL**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2/2 = 100%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	7 (in)
Depth of Saturated Soil	4 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ■ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

Plot ID:T9P1

SOILS

Map Unit Name (Series and Phase): (Ata) Ashkum silty clay loam, 0 to 3 percent slopes	Drainage Class: Poor
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-12"	A	5Y 2.5/1			Clay loam
12-18"	B	5Y 5/1	5Y 5/6	40%	Clay loam

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ■ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	■ YES ☐ NO	Is this Sampling Point Within a Wetland? ■ YES ☐ NO
Wetland Hydrology Present	■ YES ☐ NO	
Hydric Soils Present	■ YES ☐ NO	

Remarks:

This point meets all of the criteria for a wetland point.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T9
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Phalaris arundinacea*	**Herb**	**FACW+**	1		
2 *Agrostis perennans*	**Herb**	**FAC-**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 1/2 = 50%

Remarks:

Criteria for this classification are not met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	20 (in)
Depth of Saturated Soil	18 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are not met.

Plot ID:T9P2

SOILS

Map Unit Name (Series and Phase): (Ata) Ashkum silty clay loam, 0 to 3 percent slopes	Drainage Class: Poor
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-14"	A	5Y 2.5/1			Clay loam
14-20"	B	5Y 2.5/1	5Y 4/4	20%	Clay loam

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	☐ YES	■ NO	Is this Sampling Point Within a Wetland? ☐ YES ■ NO
Wetland Hydrology Present	☐ YES	■ NO	
Hydric Soils Present	■ YES	☐ NO	

Remarks:

This point does not meet the criteria for a wetland.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■ YES	☐ NO		Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐ YES	■ NO		Transect ID: T10
Is the area a potential Problem Area? (If needed, explain on reverse)	☐ YES	■ NO		Plot ID: P1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Typha angustifolia*	**Herb**	**OBL**	1		
2 *Phalaris arundinacea*	**Herb**	**FACW+**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2/2 = 100%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	4 (in)
Depth of Saturated Soil	4 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ■ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

Plot ID:T10P1

SOILS

Map Unit Name (Series and Phase): (Ata) Ashkum silty clay loam, 0 to 3 percent slopes	Drainage Class: Poor
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-12"	A	5Y 2.5/1			Clay loam

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ■ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	■ YES ☐ NO	Is this Sampling Point Within a Wetland? ■ YES ☐ NO
Wetland Hydrology Present	■ YES ☐ NO	
Hydric Soils Present	■ YES ☐ NO	

Remarks:

This point meets all of the criteria for a wetland point.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park			Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe			County: Kenosha
Investigators John Miller and Tim Armstrong			State: Wisconsin
Do Normal Conditions exist on the site?	■ YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐ YES	■ NO	Transect ID: T10
Is the area a potential Problem Area? (If needed, explain on reverse)	☐ YES	■ NO	Plot ID: P2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Phalaris arundinacea*	**Shrub**	**FACW+**	1		
2 *Sisymbrium altissimum*	**Herb**	**FACU**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 1/2 = 50%

Remarks:

Criteria for this classification are not met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	9 (in)
Depth of Saturated Soil	6 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ■ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

Plot ID:T10P2

SOILS

Map Unit Name (Series and Phase): (Ata) Ashkum silty clay loam, 0 to 3 percent slopes	Drainage Class: Poor
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-21"	**A**	**5Y 2.5/1**			**Clay loam**

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ■ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

			Is this Sampling Point Within a Wetland?
Hydrophytic Vegetation Present	☐ YES	■ NO	☐ YES ■ NO
Wetland Hydrology Present	■ YES	☐ NO	
Hydric Soils Present	■ YES	☐ NO	

Remarks:

This point does not meet the criteria for a wetland.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T11
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Phalaris arundinacea*	**Herb**	**FACW+**	1		
2			2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 1/1 = 100%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	4 (in)
Depth of Saturated Soil	4 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ■ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

Plot ID:T11P1

SOILS

Map Unit Name (Series and Phase): (Ata) Ashkum silty clay loam, 0 to 3 percent slopes	Drainage Class: Poor
Taxonomy (Subgroup):	Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-8"	A	5Y 2.5/1			Clay loam
8-12"	B	5Y 4/3	5Y 5/4	30%	Clay, with 1.5" cobble.

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ■ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

			Is this Sampling Point Within a Wetland?
Hydrophytic Vegetation Present	■ YES	☐ NO	■ YES ☐ NO
Wetland Hydrology Present	■ YES	☐ NO	
Hydric Soils Present	■ YES	☐ NO	

Remarks:

This point meets all of the criteria for a wetland point.

DATA FORM

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site Dairyland Greyhound Park				Date: April 19-21, 2004
Applicant/Owner Menominee Indian Tribe				County: Kenosha
Investigators John Miller and Tim Armstrong				State: Wisconsin
Do Normal Conditions exist on the site?	■	YES	☐ NO	Community ID: Grassland
Is the site significantly disturbed (Atypical Situation)?	☐	YES	■ NO	Transect ID: T11
Is the area a potential Problem Area? (If needed, explain on reverse)	☐	YES	■ NO	Plot ID: P2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Sub-dominant Plant Species	Stratum	Indicator
1 *Phalaris arundinacea*	**Herb**	**FACW+**	1		
2 *Aster firmus*	**Herb**	**FACW+**	2		
3			3		
4			4		
5			5		
6			6		
7			7		
8			8		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2/2 = 100%

Remarks:

Criteria for this classification are met.

HYDROLOGY

☐ Recorded Data (Describe in Remarks)

- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

■ No Recorded Data Available

FIELD OBSERVATIONS

Depth of Surface Water	none (in)
Depth of Free Water in Pit	6 (in)
Depth of Saturated Soil	2 (in)

WETLAND HYDROLOGY INDICATORS

Primary Indicators:

- ☐ Inundated
- ■ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required)

- ☐ Oxidized Root Channels in Upper 12 inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

Plot ID:T11P2

SOILS

Map Unit Name (Series and Phase): (Ata)
Ashkum silty clay loam, 0 to 3 percent slopes

Drainage Class: Poor

Taxonomy (Subgroup):

Field Observations Confirmed Mapped Type? ■ YES ☐ NO

PROFILE DESCRIPTION

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions Structure, etc.
0-10"	A	5Y 2.5/1			Clay loam
10-20"	B	5Y 4/3			Clay, with .25" gravel.

HYDRIC SOIL INDICATORS

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ■ Aquic Moisture Regime
- ☐ Reducing Conditions
- ■ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ■ Listed on Local Hydric Soils List
- ☐ Listen on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks:

Criteria for this classification are met.

WETLAND DETERMINATION

Hydrophytic Vegetation Present	■ YES ☐ NO	Is this Sampling Point Within a Wetland? ■ YES ☐ NO
Wetland Hydrology Present	■ YES ☐ NO	
Hydric Soils Present	■ YES ☐ NO	

Remarks:

This point meets all of the criteria for a wetland point.

APPENDIX B

GPS RAW DATA

DESCRIPTION	EASTING	NORTHING
S1	422003.67	4715167.27
S2	422842.52	4714904.39
T1P1	422387.35	4715484.83
T1P2	422390.26	4715487.02
T2P1	422288.06	4715403.66
T2P2	422300.96	4715398.93
T3P1	422274.42	4715355.97
T3P2	422274.63	4715351.09
T4P1	422304.74	4715499.65
T4P2	422306.34	4715504.35
T5P1	422186.23	4715491.33
T5P2	422183.54	4715494.38
T6P1	422175.11	4715610.30
T6P2	422181.16	4715611.12
T7P1	422431.82	4715113.99
T7P2	422431.56	4715106.92
T8P1	422380.05	4715250.40
T8P2	422373.81	4715250.62
T9P1	422421.59	4715282.23
T9P2	422420.31	4715291.05
T10P1	422476.71	4715454.97
T10P2	422473.99	4715454.23
T11P1	422949.51	4715612.69
T11P2	422954.02	4715615.09